

Claim 7 has been amended and converted to an independent method claim drawn to the method of making a golf ball center. Claim 7 is supported by the specification, which discusses the method of making a ball center. See pages 5-8.

III. New Claims

The applicant has added new claims 19-31. The added claims are supported by the specification. The ranges set forth in these claims are supported in the table on pages 7 and 8, and on page 8 describing the results.

IV. Rejections under 35 USC 112(1)

Core regrind is contained in the table on page 8 of the specification. Core regrind is a term known and used to define the process of grinding cores from the production process into a powder and reintroducing them as a filler. The term is well known in the art to those skilled in the production of golf ball cores

Applicant draws the Examiner's attention to page 3 of the Office Action mailed April 23, 2002. Specifically the Examiner rejects claims 15 and 18 in view of Sullivan '553. The Examiner states "Core regrind is a common filler used in golf ball cores as shown by Sullivan (col 22)". Therefore the applicant respectfully requests the removal of the 112(1) rejection as the term "core regrind" used on page 8 is sufficiently known

to one skilled in the art to require no further disclosure to satisfy the 112(1) requirements.

V. Rejections of claims under 35 U.S.C. 112(2)

Claims 2, 4-8 and 12-18 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter. Claims 2, 4-8 and 12-18 are amended to more particularly point out what the applicant regards as the invention. The amendments should render the rejection moot. Reconsideration and removal of the rejection of claims 2, 4-8 and 12-18 under 35 U.S.C. 112, second paragraph are respectfully requested.

VII. Rejections of claims under 35 U.S.C. 102

Claims 1-14, 16 and 17 stand rejected under 35 U.S.C. 102(e) as being anticipated by Yokota '295. The applicant respectfully requests that the rejection be removed in light of the **enclosed** Rule 1.131 declaration made by Mr. Sanjay Kuttappa that declares that the claimed invention was conceived and actually reduced to practice before the date of June 26, 1997. The declaration is supported by an internal memorandum drafted by Mr. Kuttappa for submission to management and to the patent counsel upon approval. The document provided as evidence to the assertions made in the 1.131 declaration. If the evidence provided in the Rule 1.131

declaration is deemed insufficient, additional evidence or declarations will be provided upon request to remove the Yokata '295 patent.

VIII. Rejections of claims under 35 U.S.C. 103

Claims 15 and 18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Yokota '295 in view of Sullivan '553. Applicant respectfully requests removal of the rejection in light of the enclosed Rule 1.1.31 declaration removing the Yokata '295 patent from consideration.

MARKED-UP CLAIMS

1. (Amended) A golf ball comprising:

a one-piece core made of a mixture of compound components comprising:

a polybutadiene rubber having a cis content of 92% or greater; and,

a heavy weight filler having a specific gravity equal to or greater than about 5.6 , wherein [said inorganic] the heavy weight filler is selected from the group consisting of tungsten, bismuth, copper, bismuth oxide, nickel, cobalt, iron, steel, tin, chromium, zinc, bismuth subcarbonate, cupric oxide, barium tungstate, cuprous oxide, and mixtures thereof; and,

a cover layer [wherein at least one said cover layer is] disposed upon
[said] the core.

2. (Amended) The golf ball of claim 1 wherein [said] the core produced with
[said] the heavy weight filler has a [results in a lower] PGA compression
lower than 95.7 [of said core relative to a core made with a lower specific
gravity filler while still maintaining] and a [higher] coefficient of restitution
higher than .695 [wherein said lower specific gravity filler, is zirconium
dioxide with a specific gravity of approximately 5.50 having a PGA of 89.3
and a coefficient of restitution of .697].

3. A three-piece wound golf ball comprising:

a one-piece center made of a mixture of compound components
comprising:

a polybutadiene rubber having a cis content of 92% or
greater; and,

a heavy weight filler having a specific gravity of at least
about 5.6 , wherein [said] the heavy weight filler is selected
from the group consisting of tungsten, bismuth, copper,
bismuth oxide, nickel, cobalt, iron, steel, tin, chromium, zinc,
bismuth subcarbonate, cupric oxide, barium tungstate,
cuprous oxide, and mixtures thereof;

a thread winding layer disposed upon [said] the core wherein [said] the thread layer comprises rubber; and,

a cover layer disposed upon [said] the thread winding layer.

4. (Amended) The golf ball of claim 3 wherein [said] the center produced with [said] the heavy weight filler has a [results in a lower] PGA compression lower than 95.7 [of said center relative to a center made with a lower specific gravity filler while still maintaining] and a [higher] coefficient of restitution higher than .695 [wherein said lower specific gravity filler is zirconium dioxide with a specific gravity of approximately 5.50 having a PGA of 89.3 and a coefficient of restitution of .697].

5. (Amended) The golf ball of claim 1 wherein the heavy weight filler is selected from the group consisting of bismuth, bismuth oxide, cobalt, iron, steel, tin, chromium, zinc, bismuth subcarbonate, ferrous oxide and mixtures thereof . Isaid core produced with said heavy weight filler results in a lower volume occupied by said heavy weight filler resulting in a lower PGA compression relative to a core made with a lower specific gravity filler while still maintaining a higher coefficient of restitution wherein said lower specific gravity filler, is zirconium dioxide with a specific gravity of approximately 5.50 having a PGA of 89.3 and a coefficient of restitution of .697 and a volume of 1.95%.]

6. (Amended) The golf ball of claim 1 wherein [by illustration said heavy weight filler selected is tungsten with a specific gravity of 19.3 is used in said core, said heavy weight filler has a volume of about 0.48% of said core, and by way of comparative illustration when a filler having a relatively low specific gravity filler used is zirconium dioxide having a specific gravity of 5.50 is used it has a volume of 1.95%, wherein use of said relatively low specific gravity filler results in increased use of amounts of said filler to meet desired weight range for said core and results in reduction of other compound components] the heavy weight filler is selected from the group consisting of iron, steel, tin, chromium, ferrous oxide and mixtures thereof.

7. (Amended) [The] A method of making a golf ball center comprising the steps of:

selecting a heavy weight filler having a specific gravity of at least about 5.6;

mixing the filler with a polybutadiene rubber, a rubber vulcanizing ingredient and core regrind;

producing a plug;

curing the plug in a mold to form the center, wherein the center formed from the plug has a PGA compression lower than 89.3 and a coefficient of restitution higher than .697. [of claim 3 wherein by illustration said heavy weight filler selected is tungsten with a specific

gravity of 19.3 is used in said center, said heavy weight filler has a volume of about 0.48% of said center, and by way of comparative illustration when a filler having a relatively low specific gravity filler, used is zirconium dioxide having a specific gravity of 5.50 is used it has a volume of 1.95%, wherein use of said relatively low specific gravity filler results in increased use of amounts of said filler to meet desired weight range for said center and results in reduction of other compound components.]

8. (Amended) The golf ball of claim 3 wherein [said] the center produced with [said] the heavy weight filler is selected from the group consisting of bismuth, bismuth oxide, cobalt, iron, steel, tin, chromium, bismuth subcarbonate, cupric oxide, barium tungstate, ferrous oxide, and mixtures thereof [results in a lower volume occupied by said heavy weight filler resulting in a lower PGA compression relative to a center made with a lower specific gravity filler while still maintaining a higher coefficient of restitution wherein said lower specific gravity filler is zirconium dioxide with a specific gravity of approximately 5.50 having a PGA of 89.3 and a coefficient of restitution of .697 and a volume of 1.95%] .

9. (Amended) The golf ball of claim 1 wherein [said inorganic] the heavy weight filler is tungsten.

10. (Amended) The golf ball of claim 3 wherein [said] the heavy weight filler is tungsten.

11. (Amended) The golf ball of claim 3 wherein [said] the one-piece core further comprises a vulcanizing agent.

12. (Amended) A golf ball solid [core] center comprising:

a compound wherein [said] the compound comprises polybutadiene rubber having a cis content of 92% or greater; and,

an inorganic filler having a specific gravity equal to or greater than about 5.6, mixed with the compound [wherein said inorganic filler results in a lower PGA compression relative to a core made with a filler having a lower specific gravity of a conventional filler wherein said lower specific gravity filler is zirconium dioxide with a specific gravity of approximately 5.50 having a PGA of 89.3,] wherein [said] the inorganic filler is selected from the group consisting of tungsten, bismuth, copper, bismuth oxide, nickel, cobalt, iron, steel, tin, chromium, zinc, bismuth subcarbonate, cupric oxide, barium tungstate, cuprous oxide, and mixtures thereof, wherein said center is capable of being used within any known golf ball configuration].

13. (Amended) The golf ball solid [core] center of claim 12 wherein the inorganic filler selected is tungsten.

14. (Amended) The golf ball solid [core] center of claim 12 further comprising a vulcanizing ingredient. [added to said core]

15. (Amended) The golf ball solid [core] center of claim 12 further comprising [the addition of] a core regrind mixed with the [to said] compound.

16. (Amended) The golf ball solid [core] center of claim 13 [12 wherein by illustration said heavy weight filler selected is tungsten with a specific gravity of 19.3 is used in said core, said heavy weight filler has a volume of about 0.48% of said core, and by way of comparative illustration when a filler having a relatively low specific gravity filler used is zirconium dioxide having a specific gravity of 5.50 is used it has a volume of 1.95%, wherein use of said relatively low specific gravity filler results in increased use of amounts of said filler to meet desired weight range for said core and results in reduction of other compound components with increased PGA] wherein the center has a PGA compression lower than 89.3 and a coefficient of restitution higher than .697.

17. (Amended) The golf ball solid [core] center of claim 12 wherein the [said core produced with said heavy weight filler results in a lower volume occupied by said heavy weight filler resulting in a lower PGA compression

relative to a core made with a lower specific gravity filler while still maintaining a higher coefficient of restitution wherein said lower specific gravity filler is zirconium dioxide with a specific gravity of approximately 5.50 having a PGA of 89.3 and a coefficient of restitution of .697 and a volume of 1.95%] compound further comprises zinc diacrylate.

18. (Amended) The golf ball of claim 2 wherein [said] the core further comprises core regrind.

19. (New) The golf ball center of claim 12 wherein the compound further comprises zinc oxide.

20. (New) The golf ball center of claim 12 wherein the compound further comprises zinc stearate.

21. (New) The golf ball center of claim 12 wherein the compound further comprises peroxide.

22. (New) The golf ball of claim 1 wherein the core produced with the heavy weight filler has a PGA compression lower than 89.3 and a coefficient of restitution higher than .697.

23. (New) The golf ball of claim 3 wherein the center produced with the heavy weight filler has a PGA compression lower than 89.3 and a coefficient of restitution higher than .697.

24. (New) The golf ball of claim 1 wherein the golf ball produced with the heavy weight filler has a PGA compression lower than 103.6.

25. (New) The golf ball of claim 3 wherein the golf ball produced with the heavy weight filler has a PGA compression lower than 97.3.

26. (New) The golf ball of claim 1 wherein the golf ball produced with the heavy weight filler has a PGA compression lower than 97.3.

27. (New) The golf ball of claim 3 wherein the golf ball produced with the heavy weight filler has a PGA compression lower than 103.6.

28. (New) A golf ball comprising:

a one-piece core wherein the core has a PGA compression lower than 95.7 and a coefficient of restitution higher than .695, and wherein the core is made of a mixture of compound components comprising:

a polybutadiene rubber having a cis content of 92% or greater; and,

a heavy weight filler having a specific gravity equal to or greater than about 5.6;

a cover layer disposed upon the core wherein the golf ball produced with the heavy weight filler results in a PGA compression lower than 103.6.

29. (New) A three piece wound golf ball comprising:

a one-piece center wherein the center has a PGA compression lower than 95.7 and a coefficient of restitution higher than .695 made of a mixture of compound components comprising:

a polybutadiene rubber having a cis content of 92% or greater; and,

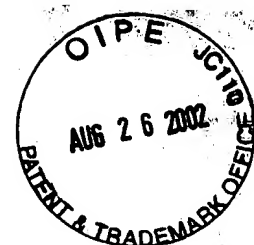
a heavy weight filler having a specific gravity equal to or greater than about 5.6;

a thread winding layer disposed upon the center wherein the thread layer comprises rubber forming a core; and,

a cover layer disposed upon the core wherein the golf ball produced with the heavy weight filler results in a PGA compression lower than 103.6.

30. (New) The golf ball of claim 28 wherein the heavy weight filler is selected from the group consisting of tungsten, bismuth, copper, bismuth oxide, nickel, cobalt, iron, steel, tin, chromium, zinc, bismuth subcarbonate, cupric oxide, barium tungstate, cuprous oxide, and mixtures thereof.

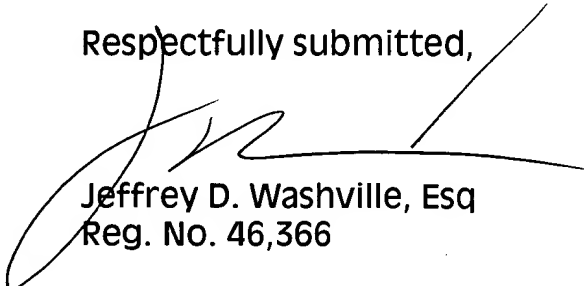
31. (New) The three piece golf ball of claim 29 wherein the heavy weight filler is selected from the group consisting of tungsten, bismuth, copper, bismuth oxide, nickel, cobalt, iron, steel, tin, chromium, zinc, bismuth subcarbonate, cupric oxide, barium tungstate, cuprous oxide, and mixtures thereof



V. Conclusion

The claims as currently submitted are fully supported by the specification, no new or unsupported matter was added. The subject matter as claimed is allowable with the removal of the Yokota '295 patent from consideration in light of the Kuttappa declaration. For the foregoing reasons, Applicant believe this application is in condition for allowance, which is respectfully requested.

Respectfully submitted,

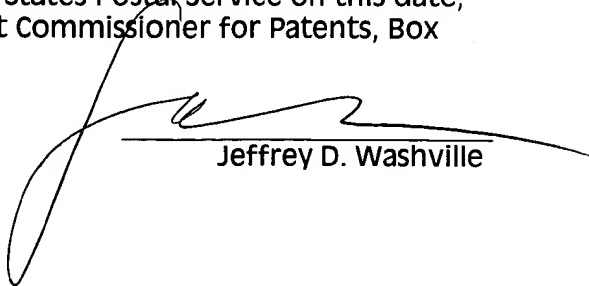

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CERTIFICATE OF MAILING UNDER 37 CFR 1.8

I hereby certify that this Transmittal Letter and any documents referred to as attached hereto are being deposited with the United States Postal Service on this date, August 19, 2002, in an envelope addressed to Assistant Commissioner for Patents, Box Non-Fee Amendment, Washington D.C., 20231,


Jeffrey D. Washville